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| APPLICATION NO.       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|------------------|
| 09/934,415            | 08/21/2001  | Brendan J. Kits      | VIGN1160-1          | 8220             |
| 44654                 | 7590        | 04/19/2005           | EXAMINER            |                  |
| SPRINKLE IP LAW GROUP |             |                      | ZHOU, TING          |                  |
| 1301 W. 25TH STREET   |             |                      | ART UNIT            | PAPER NUMBER     |
| SUITE 408             |             |                      |                     |                  |
| AUSTIN, TX 78705      |             |                      | 2173                |                  |

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                       |                   |  |
|------------------------------|-----------------------|-------------------|--|
| <b>Office Action Summary</b> | Application No.       | Applicant(s)      |  |
|                              | 09/934,415            | KITTS, BRENDAN J. |  |
|                              | Examiner<br>Ting Zhou | Art Unit<br>2173  |  |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 16 February 2005.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/29/04, 2/16/05.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

1. The Request for Continued Examination (RCE) filed on 16 February 2005 under 37 CFR 1.53(d) based on parent Application No. 09/934,415 is acceptable and a RCE has been established. An action on the RCE follows.
  
2. The amendment filed on 16 February 2005, submitted with the filing of the RCE have been received and entered. The applicant has added new claim 18. Claims 1-18 as amended are pending in the application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 and 10-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et al. U.S. Patent 6,509,898 and Jammes et al. U.S. Patent 6,484,149.

Referring to claims 1, 12, 13 and 14, Chi et al. teach a system and method comprising a general purpose computer having memory capable of operating pursuant to instructions comprising an algorithm (Chi et al.: column 5, lines 46-67 and further shown in Figure 1), wherein the algorithm further comprises the steps of loading the interaction metric between items (parent-child, sibling-sibling and usage information between nodes) (Chi et al.: column 7, lines

36-45) into memory, optimizing the placement of nodes and edges (links) pursuant to the interaction metric (using the interaction metric, or usage information to make layout decisions in order to place the nodes and links to maximize screen real estate, for example) (Chi et al.: column 7, lines 36-45 and column 8, lines 27-53) and generating a graphical representation of the nodes and edges with corresponding interaction metrics (defining relationships between elements, such as parent-child relationships and usage information to optimize the layout of the display according to the relationships, i.e., displaying the highest used nodes farthest apart from each other under the parent node so that they have the most growth space) (Chi et al.: column 2, line 16 – column 3, line 12, column 7, lines 36-45 and column 8, lines 28-52). However, although Chi et al. teach nodes representing items such as web pages and linked edges representing interactions, or relationships between the items, Chi et al. fail to explicitly teach the items represented by the nodes and edges are retail items. Jammes et al. teach graphically displaying nodes representing items and edges representing the relationships between the items (as shown on the left hand side of the interface in Figure 4, nodes, such as folders represent items such as “Store”, “Automotive”, “Computer”, etc. and edges, or the hierarchical tree-like structures between the items represent the interactions, i.e. parent-child relationships, between those items) similar to that of Chi et al. In addition, Jammes et al. further teach the items represented by the nodes and edges are retail items (the items are products, such as cars, computers, etc.) (Jammes et al.: column 30, lines 30-39 and Figure 4). It would have been obvious to one of ordinary skill in the art, having the teachings of Chi et al. and Jammes et al. before him at the time the invention was made, to modify the optimization and display of nodes and edges representing items according to the interactions between items taught by Chi et al. to

include the display of relationships between items in a retail setting of Jammes et al. One would have been motivated to make such a combination in order to provide a convenient and efficient tool that is well suited to the task of developing and managing the content of an electronic store. With the increasing popularity and accessibility of the Internet, the number of merchants using and desiring to use the World Wide Web to advertise and sell products is growing rapidly. Therefore, this combination will produce an electronic shopping system that provides a clear and optimized view of products and merchandise.

Referring to claims 2 and 15, Chi et al. teach the interaction metric being a conditional probability (usage information such as frequency of use) (column 2, lines 36-44 and column 8, lines 28-38).

Referring to claim 3, Chi et al. teach the interaction metric being based on correlations between items (parent-child and sibling-sibling relationships amongst the elements) (column 8, lines 28-32).

Referring to claims 4 and 16, Chi et al. teach the interaction metric comprising at least one of a cross-elasticity and cross-correlation between two different variables (the parent-child and child-child relationships show the cross-correlation between the two items (column 3, lines 1-11 and column 8, lines 28-52).

Referring to claims 5, 10, 11 and 17, Chi et al. teach the optimum placement of nodes and edges adheres to at least one of minimizing number of crossings between edges, distance between linked nodes is minimized, graph area is minimized, horizontal and vertical symmetries are maximized, and an angle between two edges onto a node is greater than or equal to a predetermined constant (spacing the root nodes farthest apart from each other so that the children

nodes can be placed directly under the root nodes, therefore minimizing the distance between linked nodes and the number of crossed relationship lines) (column 3, lines 1-11 and column 8, lines 39-52).

Referring to claim 18, Chi et al. teach there are multiple paths from at least one node to at least one other node (as shown in Figure 19, there are at least two paths from node 1919 to node 1920, namely, one path of going from node 1919 to 1922 and then to 1920, or another path going from node 1919 to node 1921 and then to 1920).

4. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et al. U.S. Patent 6,509,898 and Jammes et al. U.S. Patent 6,484,149, as applied to claims 1, 2, 4 and 5, and Weinberg et al. U.S. Patent 6,144,962.

Referring to claims 6-9, Chi et al. and Jammes et al. teach all of the limitations as applied to claims 1, 2, 4 and 5 above. Specifically, Chi et al. and Jammes et al. teach the display of node-link relationships for elements based on interaction metrics (defining relationships between elements, such as parent-child relationships and usage information) (Chi et al.: column 2, lines 16-46, column 7, lines 36-45 and column 8, lines 28-52). However, Chi et al. and Jammes et al. fail to explicitly teach if the interaction metric is below a predetermined threshold the interaction between at least one of the below-threshold item and an edge is not graphically displayed. Weinberg et al. teach displaying node-link relationships for elements based on interaction metrics (parent child relationships) (Weinberg et al.: column 2, lines 32-48) similar to that of Chi et al. and Jammes et al. In addition, Weinberg et al. further teach not displaying the interaction if the interaction metric is below a predetermined threshold (only displaying links that are above a

minimum activity threshold level) (Weinberg et al.: column 28, lines 56-67 and column 9, lines 1-4). It would have been obvious to one of ordinary skill in the art, having the teachings of Chi et al., Jammes et al. and Weinberg et al. before him at the time the invention was made, to modify the method and system for displaying items based on their interactions of Chi et al. and Jammes et al. to include displaying only the interactions that are above a certain threshold, as taught by Weinberg et al. One would have been motivated to make such a combination in order to avoid cluttering the display space with unimportant or non-relevant information, providing more space and focus for important information.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed on 16 February 2005, with respect to claim 18, have been fully considered but they are not persuasive. The applicant argues that in the structures taught by Chi et al., there is only one path from any node to any other node. The examiner respectfully disagrees. Chi et al. teach that there are multiple paths from at least one node to at least one other node. For example, as shown in Figure 19, there are at least two paths from node 1919 to node 1920, namely, one path of going from node 1919 to 1922 and then to 1920, or another path going from node 1919 to node 1921 and then to 1920. Therefore, the examiner respectfully contends that Chi et al. teach the limitation "there are multiple paths from at least one node to at least one other node".

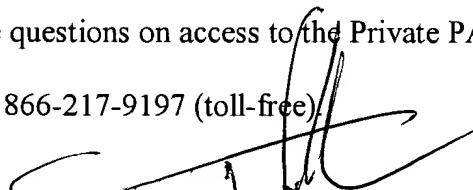
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-4058.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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